



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,625	05/29/2001	Kyu Takada	018656-199	4105

21839 7590 08/13/2003

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

PHAN, JAMES

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,625

Applicant(s)

TAKADA ET AL.

Examiner

James Phan

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 and 16-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 and 23 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 24 is/are rejected.
- 7) ☒ Claim(s) 3-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The indicated allowability of claim 2 is withdrawn for the reason stated in the following rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt.

Brandt discloses an optical scanner which comprises a light source (12); a deflector (polygon mirror 20) having facets (21); and an optical surface (protective optical coating layer) applied on each of the facets of the deflector for providing relative uniformity of reflectance of P-polarized and S-polarized incident light (see Figs. 1, 4 and 5-6 and abstract). Brandt further discloses, in Figs. 5 and 6, that when the film thickness is 180 nm, the reflectance of S-polarized light (about 0.90) and the reflectance of P-polarized light (about 0.894) are substantially the same at an incident angle of 15 degrees. Brandt does not disclose a plurality of light beams emitted from the light source. However, the use of a light source for emitting a plurality of light beams in a scanning device for scanning a plurality of light beam simultaneously so as to reduce scanning operation time is well known in the art. Thus, it would have been obvious to one skilled in the art at the time the invention was made to replace the light source (12) in Brandt with a multiple beam light source for emitting a plurality of light beams so that

Art Unit: 2872

the plurality of the light beams can be simultaneously scanned for reducing the scanning operation time.

In re claim 2 the difference between the reflectance of S-polarized light and the reflectance of P-polarized light is $\{(0.90-0.894) / ((0.90+0.894)/2)\} \times 100 = 0.669\%$.

Applicant has traversed the above rejection by arguing that Brandt does not use S-polarized light and P-polarized light together. The examiner agrees; however, neither claim 1 nor 24 positively recites that the S-polarized light and P-polarized light are components of the "plurality of light beams" recited in the claims.

Allowable Subject Matter

Claims 13-15 and 23 are allowed.

Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest an optical scanner having (1) the feature specified in each of claims 3 and 4; and (2) the combination features of "a light source for emitting a plurality of light beams in which a polarization direction of at least one of the light beams is different from polarization directions of the other light beams" and "the optical surface having a reflectance for s-polarized light and a reflectance for p-polarized light that are substantially the same at a predetermined incident angle to the optical surface" (claim 13, lines 2-4 and 8-10).


Art Unit: 2872

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703) 308-4810. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (703) 305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Phan, J.
August 11, 2003


James Phan
Primary Examiner